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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)

The Establishment of Policies and)
Service Rules for the Mobile)
Satellite Service in the 2 GHz Band)

IB Docket No. 99-81
RM-9328

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To: The Commission

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS

The Association of American Railroads ("AAR"), by its undersigned counsel, pursuant to section 1.415 of the rules of the Federal Communications Commission ("Commission"),^{1/} hereby submits its comments in response to the above captioned Notice of Proposed Rule Making^{2/} concerning use of the 6, 11, and 12 GHz bands for Mobile Satellite Service ("MSS") feeder links.

AAR is a voluntary, non-profit organization composed of Class I member railroad companies operating in the United States, Canada and Mexico. AAR is the joint representative and agent of these railroads in connection with federal regulatory matters of common concern to the industry as a whole, including matters pertaining to regulation of communications. In addition, AAR functions as the frequency coordinator with respect to operation of land mobile and other radio-based services.

^{1/} See 47 C.F.R. § 1.415.

^{2/} In the Matter of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band, IB Docket No. 99-81, Notice of Proposed Rule Making, (FCC 99-50) (Released March 25, 1999) ("Notice").

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I. SUMMARY OF RAILROAD INDUSTRY POSITION

AAR believes that the proposals in this proceeding regarding satellite feeder links are premature, and present significant potential problems for licensees of fixed microwave facilities in the 6, 11, and 12 GHz bands, for two reasons. First, downlink power limits are currently the subject of an ongoing proceeding, and may not be adequate to protect Fixed Service links; and, second, the siting of MSS gateway earth terminals will impose constraints on the expansion of terrestrial Fixed Services. Accordingly, AAR recommends that the Commission not adopt the proposed rules unless and until the Commission has satisfied itself beyond question that no operational constraints or interference will be inflicted upon Fixed Service incumbents as a result of the proposed MSS gateway earth stations.

II. NATURE OF RAILROADS' INTEREST

As the Commission is aware, the railroad industry makes extensive use of fixed microwave links for the operation and control of train movements.^{3/} The North American railroad industry deploys and depends upon a comprehensive and sophisticated network of point-to-point fixed service (FS) microwave systems used to carry voice and data traffic which is integral to the minute-to-minute management and control of train movements throughout the rail network.^{4/} These FS links are vital to

^{3/} See e.g., Comments of Association of American Railroads in ET Docket No. 95-18, RM-7927, filed March 5, 1995; Railroads' Comments in Response to SkyBridge Application (11 GHz Band), filed December 15, 1997.

^{4/} See AAR's Comments in ET Docket No. 95-18, filed May 5, 1995; AAR's Reply Comments filed June 21, 1995; and AAR's Response to Comsat's Supplemental Comments filed May 17, 1996.

ensuring safety on the nation's railroads. The FS links are used to interconnect the trackside radio facilities (both mobile and fixed) with the centralized dispatching center in each railroad's operating region.

FS microwave circuits are integral links in this nationwide railroad communications system. These links carry communications to advise of dangerous conditions and, if necessary, bring railroad operations to a halt to prevent unsafe conditions. Radio communications between trains and central dispatchers are essential to protect railroad employees and the general public. Only radio can provide immediate information on the location, direction and speed of hundreds of trains operating at the same time on each major railroad in the country. These operational and safety uses are absolutely critical to the safe operation of railroads and cannot be jeopardized by interference from other spectrum users, including co-frequency MSS feeder links.

III. ALLOCATIONS FOR MSS FEEDER LINKS MUST CONSIDER EXISTING AND FUTURE NEEDS OF THE FS COMMUNITY FOR ACCESS TO SPECTRUM

The Commission accurately notes that satellite earth station feeder links are currently under review as part of the MSS allocation proceeding,^{5/} as well as in the context of the SkyBridge application proceeding.^{6/} AAR has contributed to the record of

^{5/} See In the Matter of Amendment of Parts 2, 25 and 97 of the Commission's Rules with regard to the Mobile-Satellite Service Above 1 GHz, ET Docket No. 98-142, Notice of Proposed Rule Making, 13 FCC Rcd 17107 (1998) ("Allocation NPRM").

^{6/} See In the Matter of Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS systems Co-Frequency with GSO and Terrestrial Systems in the Ku-band Frequency Range, ET Docket No. 98-206, Notice of Proposed Rule Making, FCC 98-310 (rel. November 24, 1998) ("Skybridge NPRM").

both of these proceedings,^{7/} and will not restate in detail all of its concerns regarding the co-channel sharing of frequencies between the terrestrial fixed services and satellite feeder links. Nevertheless, AAR takes this opportunity to restate the core principles and policy concerns that it believes must be applied in order to ensure existing and future access to spectrum for the terrestrial fixed services.

First, FS systems must be protected from downlink interference. Specifically, AAR urges the Commission to adopt the proposal of the Telecommunications Industry Association ("TIA") to use simulation programs for assessing the interference potential to terrestrial systems before proceeding with the allocation of FS frequencies for satellite feeder link use.^{8/}

Second, feeder link gateways must be narrowly defined and specifically limited in number. The Commission must ensure that the distinction between feeder links and subscriber links remains clear. If the definition of a feeder link is too broad, MSS operators will be able to ubiquitously deploy "gateways" that are the functional and commercial equivalent of subscriber earth stations. Additionally, the Commission should affirmatively limit the number of gateway earth stations for which any single MSS operator may be licensed. In the Allocation NPRM, the Commission assumed that

^{7/} See ET Docket No. 98-142, Reply Comments of the Association of American Railroads, filed October 13, 1998; ET Docket No. 98-206, Comments of the Association of American Railroads, filed March 2, 1999.

^{8/} See ET Docket No. 98-142, Comments of the Fixed Point-to-Point Communications Section of the Telecommunications Industry Association, filed September 13, 1998.

each MSS operator would require approximately six gateway earth stations.^{9/} AAR urges the Commission to affirmatively limit each MSS operator to six gateway earth stations.

Finally, the placement of MSS feeder link stations should be limited to remote geographic areas. Because the bands in question will be used for MSS feeder links, as distinct from subscriber links, there would appear to be no need for location of the MSS earth stations in or near population centers. Instead, feeder link earth stations could be located in remote geographic areas, far away from the congested FS links which coincide geographically with major population centers because of the need for infrastructure support in those locations (e.g., utilities, pipelines, rail facilities, public safety networks, etc.). For this reason, AAR urges the Commission to adopt stringent regulatory constraints on the location of these feeder link earth stations, restricting their placement to locations far removed from existing or planned terrestrial FS links.


^{9/} Allocation NPRM at ¶ 6.

IV. CONCLUSION

In adopting rules governing the deployment of MSS feeder link stations as proposed in this proceeding, the Commission must consider very carefully the potential adverse impact upon existing terrestrial users, especially those operating in safety-critical businesses such as the railroad industry.

Respectfully submitted,

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Date: June 26, 1999

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on this 24th day of June, 1999, I caused copies of the foregoing document to be served by first-class U.S. mail to the following:

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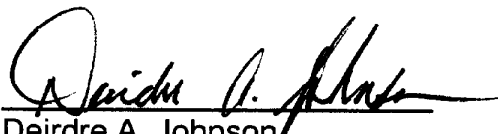
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